

Appln. No. 09/975,382
Amdt. dated November 29, 2005
Reply to Office Action dated October 19, 2005

IN THE CLAIMS:

Please amend claims 1, 5, 9-13, 15, 17 and 19 as follows.

The following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended). A method of coding a multi-media object using an encoder which is receivable of the multi-media object from an input unit or object generation unit and generates a bit-stream which is subsequently reproducible by 5 a reproduction unit or decoder to obtain the multi-media object, the method comprising:

coding the object to obtain a bit-stream having multiple coded parts, each coded part including a header and a data part, generating quality information which indicates a ~~quality~~
10 ~~distortion~~ of the object when the bit-stream is truncated during decoding thereof in relation to the data parts of the coded parts of the bit-stream, and

adding the quality information [[to]] into the headers of the coded parts of the bit-stream such that the quality 15 information is situated throughout the bit-stream.

Claim 2 (Original). A method as claimed in claim 1, wherein

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the coding step is a scalable coding step to obtain a scalable bit-stream.

Claim 3 (Previously Presented). A method as claimed in claim 1, wherein the quality information relates to an object reproduction quality.

Claim 4 (Original). A method as claimed in claim 3, wherein the quality information is based on a signal to noise ratio value.

Claim 5 (Currently Amended). A method as claimed in any of the preceding claims, wherein the quality information is in the form of quality tags which are added at given locations in the bit-stream, the quality tags indicating a quality distortion of 5 the object when the bit-stream is truncated just after (or alternatively just before) the given location in the bit-stream.

Claim 6 (Previously Presented). A method as claimed in claim 1, wherein the quality information is incorporated in existing fields of a given scalable coding standard.

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Claim 7 (Original). A method as claimed in claim 2, wherein the scalable bit-stream includes several layers and wherein respective layers include respective quality information.

Claim 8 (Original). A method as claimed in claim 1, wherein the bit-stream is encrypted and the quality information is unencrypted.

Claim 9 (Currently Amended). A method of controlling at least one bit-stream representing a multi-media object in which bit-stream quality information has been added [[to]] into headers of coded parts of the bit-stream situated before data parts of 5 the coded parts, the quality information indicating a ~~quality distortion~~ of the object in relation to a given position in (or a given part of) the bit-stream, the method comprising:

receiving the at least one bit-stream,
extracting the quality information from the headers of the coded parts of the bit-stream,
transcoding or truncating the at least one bit-stream in the case a desired combination of bit-rate and ~~quality distortion~~ of 10 the at least one bit-stream differs from a current combination of bit-rate and ~~quality distortion~~ of the at least one received

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bit-stream,

providing the at least one bit-stream at the desired

15 combination of bit-rate and ~~quality distortion~~, and

processing the at least one bit-stream in consideration of the quality information obtained from the header of one or more coded parts of the bit-stream near the truncation point.

Claim 10 (Currently Amended). A method of transmitting at least one multi-media object using a transmitter which generates and transmits a bit-stream which is subsequently reproducible by a reproduction unit or decoder to obtain the multi-media object, 5 the method comprising ~~the steps of~~:

coding the object to obtain the bit-stream having multiple coded parts, each coded part including a header and a data part,

generating quality information which indicates ~~a quality distortion~~ of the object when the bit-stream is truncated during 10 decoding thereof in relation to the data parts of the coded parts of the bit-stream,

adding the quality information [(to)] into the headers of the coded parts of the bit-stream such that the quality information is situated throughout the bit-stream, and

15 transmitting the bit-stream in which the quality information

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has been added.

Claim 11 (Currently Amended). A method of receiving at least one bit-stream representing a multi-media object in which bit-stream quality information has been added [[to]] into headers of coded parts of the bit-stream situated before data parts of 5 the coded parts, the quality information indicating ~~a quality distortion~~ of the object in relation to a given position in (or a given part of) the bit-stream, the method comprising:

extracting the quality information from the headers of the coded parts of the bit-stream,

10 transcoding or truncating the at least one bit-stream in the case a desired combination of bit-rate and quality distortion of the at least one bit-stream differs from a current combination of bit-rate and quality distortion of the at least one received bit-stream,

15 providing the at least one bit-stream at the desired combination of bit-rate and quality distortion,

decoding the at least one bit-stream at the desired combination of bit-rate and quality distortion, and

20 processing the at least one bit-stream in consideration of the quality information obtained from the header of one or more

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coded parts of the bit-stream near the truncation point.

Claim 12 (Currently Amended). A method of receiving at least one bit-stream representing a multi-media object in which bit-stream quality information has been added [[to]] into headers of coded parts of the bit-stream situated before data parts of 5 the coded parts and enabling the multi-media object to be reproduced by a reproduction unit, the quality information indicating a quality distortion of the object in relation to a given position in (or a given part of) the bit-stream, the method comprising ~~the steps of:~~:

10 extracting the quality information from the headers of the coded parts of the bit-stream;

decoding the bit-stream to obtain a decoded multi-media object; and

15 processing the multi-media object in dependence on the extracted quality information obtained from the header of one or more coded parts of the bit-stream whereby the processed multi-media object is reproducible by the reproduction unit.

Claim 13 (Currently Amended). A device for coding a multi-media object, the device comprising:

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means for coding the object to obtain a bit-stream having multiple coded parts, each coded part including a header and a
5 data part,

means for generating quality information which indicates a—
quality distortion of the object when the bit-stream is truncated during decoding thereof in relation to the data parts of the coded parts of the bit-stream, and

10 means for adding the quality information [[to]] into the headers of the coded parts of the bit-stream such that the quality information is situated throughout the bit-stream.

Claim 14 (Original). A transmitter comprising a device as claimed in claim 13.

Claim 15 (Currently Amended). A controller for controlling at least one bit-stream representing a multi-media object in which bit-stream quality information has been added [[to]] into headers of coded parts of the bit-stream situated before data
5 parts of the coded parts, the quality information indicating a—
quality distortion of the object in relation to a given position in (or a given part of) the bit-stream, the controller comprising:

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means for receiving the at least one bit-stream,
10 means for extracting the quality information from the
headers of the coded parts of the bit-stream,
means for truncating the at least one bit-stream in the case
a desired combination of bit-rate and quality distortion of the
at least one bit-stream differs from a current combination of
15 bit-rate and quality distortion of the at least one received
bit-stream,
means for providing the at least one bit-stream at the
desired combination of bit-rate and quality distortion, and
means for processing the at least one bit-stream in
20 consideration of the quality information obtained from the header
of one or more coded parts of the bit-stream near the truncation
point.

Claim 16 (Original). A receiver comprising a controller as
claimed in claim 15.

Claim 17 (Currently Amended). A receiver for receiving at
least one bit-stream representing a multi-media object in which
bit-stream quality information has been added [[to]] into headers
of coded parts of the bit-stream situated before data parts of

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5 the coded parts, the quality information indicating a ~~quality~~
distortion of the object in relation to a given position in (or a
given part of) the bit-stream, the receiver comprising:

means for extracting the quality information from the
headers of the coded parts of the bit-stream;

10 means for decoding the bit-stream to obtain a decoded
multi-media object; and

means for processing the multi-media object in dependence on
the extracted quality information obtained from the header of one
or more coded parts of the bit-stream.

Claim 18 (Original). A multiplexer or network node
comprising a controller as claimed in claim 15.

Claim 19 (Currently Amended). A bit-stream representing a
multi-media object in which bit-stream quality information has
been added, the bit-stream having multiple coded parts generated
and transmitted by a transmitter and subsequently processable to
5 enable reproduction of the multi-media object by a reproduction
unit, each coded part having a header and a data part, the
quality information indicating a ~~quality~~ distortion of the object
when the bit-stream is truncated during decoding thereof in

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relation to the data parts of the coded parts of the bit-stream,
10 the quality information being present in the header of the coded
parts of the bit-stream such that the quality information is
situated throughout the bit-stream.

Claim 20 (Previously Presented). A storage medium on which
a bit-stream as claimed in claim 19 has been stored, the storage
medium being arranged to receive the bit-stream from the
transmitter and being subsequently couplable to the reproduction
5 unit to enable transmission of the bit-stream from the storage
medium to the reproduction unit for reproduction thereby.